

Amendment to the Claims:

1-9. (Cancelled)

10. (New) A system for visualizing perfusion behavior of an organ, the system comprising:

a processor programmed to:

5 for each image in a series of images, determine a transform that minimizes positional differences between a reference region in the immediate vicinity of the organ in each image and the same reference region in a preceding image,

operate on each image with the corresponding determined transform such that the reference region in each image is transformed to a common position,

10 analyze the series of images with the reference region in the common position to determine the perfusion behavior of the organ; and,

a display on which at least one of a visualization of the perfusion behavior and the series of images is displayed.

11. (New) A method of visualizing perfusion behavior of an organ, the method comprising:

acquiring a series of images which contain the organ;

determining a reference region in each image of the series;

5 for each image of the series, determining a transform that minimizes positional differences between the reference region in said each image and the reference region in a preceding reference image;

operating on each image with the determined transform that minimizes the differences between the reference regions of said each image and the preceding reference image such that the reference region of image is transformed to a common position in each image;

determining a perfusion measurement of the organ;

displaying the perfusion measurement.

15

12. (New) The method according to claim 11, wherein the reference image is an immediately preceding image.

13. (New) The method according to claim 11, wherein the reference image is a first image of the series.

14. (New) The method according to claim 11, wherein the determined transform that minimizes the differences between the reference regions of each image and the reference image operates on the entire each image.

15. (New) The method according to claim 11, further including:

displaying each image of the series with the reference region in the common position.

16. (New) The method according to claim 11, wherein the transform is limited to translation and rotation.

17. (New) The method according to claim 11, wherein acquiring the series of images includes:

magnetic resonance imaging a subject that has been injected with a contrast liquid that facilitates perfusion measurement.

18. (New) The method according to claim 17, wherein the perfusion measurement is determined from intensity variation of the injected contrast liquid in successive images.

19. (New) The method according to claim 18, wherein the series of images are displayed serially with the reference region in the common position for visual inspection enabling analysis of the perfusion behavior of the organ to be examined.

20. (New) A computer readable medium which includes a computer program transferrable to a general purpose computer to control the general purpose computer to implement the method according to claim 11.

21. (New) A method of visualizing perfusion behavior of an organ, the method comprising:

performing a transformation generation on every pair of successive images from a series of image of the organ in such a manner that subsequent to the transformation, the organ is displayed in a common position in each image,

the transform operation being determined from a reference region in the immediate vicinity of the organ in the images of the series such that the perfusion behavior of the organ can be visualized while other less important parts of the images are subject to displacement from image to image.

22. (New) A computer readable medium carrying a computer program for controlling a computer to perform the method according to claim 21.

23. (New) A system for visualizing perfusion behavior of an organ comprising:

a processor programmed to perform the method of claim 21; and,

a display for displaying at least one of the perfusion behavior and the

5 series of images.